

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

In re Patent Application of

Atty Dkt. SCS-550-471

C# M#

WATT et al

TC/A.U.: 2183

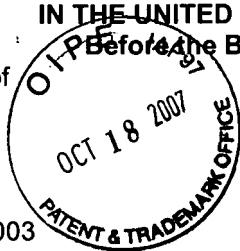
Serial No. 10/714,483

Examiner: B. Johnson

Filed: November 17, 2003

Date: October 18, 2007

Title: MONITORING CONTROL FOR MULTI-DOMAIN PROCESSORS

**Mail Stop Appeal Brief - Patents**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

☐ **Correspondence Address Indication Form Attached.**☐ **NOTICE OF APPEAL**Applicant hereby **appeals** to the Board of Patent Appeals and Interferences

from the last decision of the Examiner twice/finally rejecting applicant's claim(s). \$510.00 (1401)/\$255.00 (2401) \$

☐ An appeal **BRIEF** is attached in the pending appeal of the above-identified application \$510.00 (1402)/\$255.00 (2402) \$☐ Credit for fees paid in prior appeal without decision on merits -\$( )☒ A reply brief is attached. (no fee)☐ Petition is hereby made to extend the current due date so as to cover the filing date of this paper and attachment(s)  
One Month Extension \$120.00 (1251)/\$60.00 (2251)  
Two Month Extensions \$460.00 (1252)/\$230.00 (2252)  
Three Month Extensions \$1050.00 (1253)/\$525.00 (2253)  
Four Month Extensions \$1640.00 (1254)/\$820.00 (2254) \$☐ "Small entity" statement attached.

Less month extension previously paid on -\$( )

**TOTAL FEE ENCLOSED \$ 0.00**

Any future submission requiring an extension of time is hereby stated to include a petition for such time extension. The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our **Account No. 14-1140**. A duplicate copy of this sheet is attached.

901 North Glebe Road, 11th Floor  
Arlington, Virginia 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100  
SCS:kmm

NIXON &amp; VANDERHYE P.C.

By Atty: Stanley C. Spooner, Reg. No. 27,393

Signature: 



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
Before the Board of Patent Appeals and Interferences

In re Patent Application of

WATT et al

Atty. Ref.: SCS-550-471

Serial No. 10/714,483

TC/A.U.: 2183

Filed: November 17, 2003

Examiner: B. Johnson

For: MONITORING CONTROL FOR MULTI-DOMAIN PROCESSORS

\* \* \* \* \*

October 18, 2007

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**REPLY BRIEF**

This Reply Brief is responsive to the Examiner's Answer mailed August 21, 2007.

The Examiner's Answer between pages 13 and 20 raises new points of argument which are responded to as follows.

**A. Examiner's response to Appeal Brief page 6 allegation that "the Examiner fails to identify any portion of the Angelo reference which discloses the step of 'setting' in claim 1 or the 'storage element' of claim 20**

The Examiner's admission that Appellant has correctly stated what Applicant believes to be the Examiner's position is very much appreciated ("Appellant has correctly stated Examiner's position that the System Management Interrupt (SMI) is the claimed 'control value'." (Examiner's Answer, page 14, first full paragraph)).

In the second full paragraph on page 14, the Examiner refers to “a condition” as being defined in “Dictionary.com.” The Examiner has not made any evidence from “Dictionary.com” of record in this application and therefore the Examiner’s definition does not overturn the definition ascribed to the word by those of ordinary skill in the art in view of the present specification and the claims.

Appellants’ specification describes a number of embodiments in which the “condition” can comprise a “secure domain” (page 4, line 17), a “secure user mode” (page 4, line 23), a “type of monitoring function” (page 4, line 29), a “trace monitoring function” (page 5, lines 1-2), etc. The term “condition” is believed to be well known to those of ordinary skill in the art. However, should the Examiner contend that it is not, he is obligated to apply the definition set out in Appellants’ specification so as to incorporate the various examples set forth therein. Accordingly, Appellants dispute the Examiner’s “rather broad definition” from “Dictionary.com” as completely unsupported.

The Examiner disagrees with Appellants’ assertion that “SMI is not ‘related to a condition’ or ‘indicative of whether said monitoring function is allowable in said first domain’.” (As stated in the second full paragraph on page 7 of the Appeal Brief and as traversed in the first full paragraph on page 14 of the Examiner’s Answer).

If one adopts the Examiner’s stated position that the SMI “is the claimed ‘control value’,” then it will be seen that all of the “conditions” are either conditions that provoke or trigger the SMI or are conditions that are themselves triggered by an SMI mode of operation. Using the Examiner’s own interpretation, Angelo fails to disclose “not allowing initiation of said monitoring function in said first domain **when said condition**

**is present** and its related control value indicates that said monitoring function is not allowable.” Angelo fails to disclose this claimed feature because the condition is **never present** when the related control value indicates that the monitoring function is not allowable.

Because the interpretation the Examiner gives to the word “condition” is one where it either triggers the related control (SMI) or is triggered by the SMI, the condition can never be present when the related control value indicates that the monitoring function is not allowable. Thus, by the Examiner’s own admission and interpretation, in Angelo, **when the condition is present**, the monitoring function is **always allowable** in Angelo. The Examiner’s interpretation of Angelo is thus logically the direct opposite of the claim requirement of “**not allowing initiation** of said monitoring function in said first domain **when said condition is present**” (emphasis added) claims 1 and 20).

Moreover, as Appellants noted in the Appeal Brief, second full paragraph on page 7, “there is no discussion in Angelo that discloses or even suggests that the SMI is ‘indicative of whether said monitoring function is allowable in said first domain’.” The Examiner has failed to identify any portion of Angelo which discloses or suggests this feature claimed in the last three lines of Appellants’ independent claims 1 and 20. Where the Examiner believes this is present is still questioned and the Examiner’s failure to point out such a disclosure in Angelo is believed an admission that, as Appellants contend, this simply does not exist in the Angelo reference.

The Examiner also alleges in his Section A response at page 15 that the storage element is “an inherent aspect of the invention” in Angelo, as the SMI signal “must be

stored somewhere.” This interpretation is believed incorrect. The interrupt signal is asserted (or sent) as is set out in column 7, line 56 of Angelo. This means that a signal line goes high or low depending on the nature of the processing apparatus. This does **not** mean that a value has been stored within any storage element and this fact would be clearly understood by those having the slightest skill in the art of microprocessors.

A storage element is something that is set to a certain value in response to a signal and then holds that value, i.e., stores it, when the signal is no longer present. If a signal is asserted, then it is present, provided that the signal remains asserted, i.e., the signal line is held at that potential. Without storage, the signal needs to be constantly applied for it to be present. This is why storage is not inherently disclosed in Angelo for a signal which can be momentarily asserted.

Thus, contrary to the Examiner’s assertion, Angelo does not “inherently” disclose a storage element for storing the value of SMI because storage of signals and assertion of signals are clearly recognized by those of ordinary skill in the art as being two different things.

**B. Examiner’s response to Appeal Brief page 8 allegation that  
In view of the Examiner’s admission, the Alverson/Angelo  
combination fails to disclose the claimed “control value”**

As noted on page 8, first full paragraph, of the Appeal Brief, the Examiner has previously admitted on the record that the Alverson reference “fails to disclose particular information about monitoring.” However, the Examiner apparently disagrees with the contention that he has failed to meet his burden of proof.

The Examiner references his discussion on Section A in which he contends that Appellants confirm the Examiner's interpretation of Angelo, i.e., that SMI is the claimed "control value." The Examiner has perhaps unintentionally misconstrued Appellants suggestion of the understanding of the Examiner's position with a confirmation of that erroneous position. Appellants have merely stated what they think is the Examiner's improper conclusion and, as noted in Section A, has logically shown that the Examiner's conclusion (when the condition is present in Angelo, the monitoring function is always allowable) leads one directly away from the subject matter set out in the last three lines of Appellants' independent claims 1 and 20 ("not allowing initiation of said monitoring function in said first domain when said condition is present . . ."). As noted above, the claim language is the direct opposite of the operation of the Angelo reference.

The fact that the Examiner admits that Alverson fails to disclose this claimed feature and that the Examiner cannot logically point to any identification of this claimed feature in Angelo is clear that, even if the references were combined, they fail to disclose the claimed "setting" step of "allowing" or "not allowing."

It would appear that section B in the Examiner's Answer attempts to mislead the Board into believing that Appellants' stating of the Examiner's position is an admission that the Examiner's position is somehow correct. It is not, as noted above in Section A.

**C. Examiner's response to Appeal Brief page 9 allegation that there is no allegation that either Alverson or Angelo teaches the claimed "not allowing" step in claim 1 or the similar portion of the "control logic" of claim 20**

The Examiner's statement that he believes the claimed limitations are "clearly and explicitly disclosed" in Angelo is very much appreciated. The Examiner's summary of that position "when this mode is activated, the monitoring function begins . . . [and] this monitoring is not allowed otherwise . . ." is also appreciated. However, these characteristics of Angelo are the direct opposite of the language of the last three lines of Appellants' independent claims "**not allowing initiation** of said monitoring function in said first domain **when said condition is present** . . . ." The Examiner admits that Angelo teaches when the mode is activated the monitoring function begins, whereas the claim says "not allowing initiation of said monitoring function . . . when said condition is present." Angelo is thus diametrically opposite that which is specified in Appellants' independent claims.

Accordingly, the Examiner's own words confirm that Angelo not only fails to disclose the last three lines of Appellants' independent claims, it actually leads one of ordinary skill in the art away from this claimed "setting" step.

**D. Examiner's response to Appeal Brief page 10 allegation that the Examiner appears to ignore the fact that Angelo "teaches away" from Appellants' independent claims**

The Examiner's response under Section D begins with the Examiner's agreement that in Angelo "the monitoring is always allowed when the SMI is asserted and the processor enters into SMM." The Examiner essentially states that in Angelo "initiation

of the monitoring function is not allowed . . . when the related control value indicates that the monitoring function is not allowable . . . .” This is incorrect because, as noted above, when the condition is present, the monitoring function is always allowable in Angelo and thus the mode and the control value must always be the same.

In any event, the Examiner has failed to point to any disclosure in Angelo of the idea of not allowing initiation of said monitoring function in said first domain when said condition is present and its related control value indicates that the monitoring function is not allowable. The Examiner has not explained any condition that is related to the control value and yet is present when the control value indicates that the monitoring function is not allowable. In such a case, the condition system management mode is triggered upon assertion of an SMI and cannot be present when the SMI is not.

In fact, in Angelo, there does not seem to be any condition disclosed that is related to the control value (SMI) and yet can be present when the control value indicates that the monitoring function is either allowable or not allowable. All the conditions discussed in Angelo and referenced by the Examiner actually trigger the SMI or are triggered by it and are thus always present when it, the SMI, is present.

**E. Examiner’s response to Appeal Brief page 10 allegation that the Examiner provides no support for his "common art" rejection of claims 9, 10, 17 and 37**

The Examiner suggests that the Christensen reference (U.S. Patent 5,752,013) and/or the Faccin reference (U.S. Patent 6,879,690) disclose elements which the Examiner admits are missing in the Alverson/Angelo combination. However, the Examiner’s supplemental disclosure of these new references (believed to be identified for



the first time in the Examiner's Answer and still not present on any PTO Form 892 of record in this application) fails to respond to Section E because, in addition to the existence of references, the Examiner must provide some "rationale" or "motivation" for combining those new references with the Alverson/Angelo combination.

The Examiner is merely contending that the alleged disclosures would somehow and for some unknown reason always be combined with the Alverson/Angelo combination and this is simply not supported by any articulated reason or evidence of record.

**F. Examiner's response to Appeal Brief page 12 allegation that the rejection of claims 1-8, 11-16, 18-36, 38 and 39 under 35 USC §103 over Alverson (U.S. Patent 7,020,767) in view of Angelo (U.S. Patent 6,581,162) is in error for numerous reasons**

The Examiner's response to the specific rejection of claims in the Final Rejection under §103 over the Alverson/Angelo combination does not respond to the individual points raised and merely relies upon his previous discussion with respect to Sections A-E. As these are addressed above, it is clearly noted that the Examiner has failed to meet his burden of establishing a *prima facie* case of obviousness by showing claim steps to be disclosed somewhere in prior art references. Therefore, the Examiner's reliance upon his response with respect to Sections A-E does not provide a completely response.

The Examiner's allegation that "motivation is not required for a rejection under 35 USC 103" is incorrect and is inconsistent with the Patent Office interpretation of *KSR*. The Deputy Commissioner for Patent Operations, Margaret A. Focarino, on May 3, 2007,

forwarded a Memorandum to all technology center directors with respect to the Supreme Court's *KSR* decision.

As the Deputy Commissioner noted, the Supreme Court required that the analysis supporting a rejection under 35 USC §103 should be made explicit and that it was "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. The Court concluded "to facilitate review, this analysis should be made explicit." Thus, Deputy Commissioner Focarino stated at the end of the Memorandum "in formulating a rejection under 35 USC §103(a) based upon a combination of prior art elements, it remains necessary [for the examiner] to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed."

Thus, the Examiner's allegation that there is no requirement for a "reason" or "motivation" to be articulated is simply incorrect and contravenes existing PTO policy and Supreme Court precedent. The Examiner's conclusory statement that "Alverson, at the time of the invention, would have been motivated to use SMM and SMI in a computer security memory management to protect against malicious software and viruses, thereby improving security memory management" is merely 20/20 hindsight. Alverson has no suggestion that combining it with portions of Angelo or other references would provide any benefit at all if or when portions were combined with portions of Alverson. Appellants have neither overlooked nor chosen not to address the alleged motivation and instead has pointed out that the alleged motivation is merely a conclusory

statement of motivation and does not contain any explicit indication of how or why the Examiner believes there to be a reason to combine known elements in the fashion claimed by the patent at issue.

The requirement to articulate some “reason” of “motivation” to combine references remains the Examiner’s burden in order to establish a *prima facie* case of obviousness. The Examiner’s continuing failure to address this glaring error in the rejection is appealable to the Board.

**G. Examiner’s response to Appeal Brief page 13 allegation that the rejection of claims 9, 10, 17 and 37 under 35 USC §103 over Alverson/Angelo “in view of common art” is in error for numerous reasons**

The Examiner, in responding to the rejection of claims 9, 10, 17 and 37 and the noted lack of motivation for these claims, again asserts his own hindsight motivation for achieving a benefit set out in Appellants’ claims which is not disclosed in the Angelo, Alverson and “common art,” i.e., the Christensen and Faccin references discussed in Section E above.

Again, Appellants incorporate the points raised in Section F above with respect to the Supreme Court requirements and the burden remaining on the Examiner to provide an explicit analysis of the reason or motivation for combining references. The existing conclusory statements based upon the Examiner’s own perception are insufficient to meet the burden of establishing a *prima facie* case of obviousness.

The above sections respond to each of the alleged “Response to Arguments” portions set out in the Examiner’s Answer. It is believed clear that the Examiner has not properly understood the subject matter of the Angelo reference and how Angelo is inconsistent with the language of independent claims 1 and 20 and claims dependent thereon. The Examiner repeats the deficient arguments from his Final Rejection and fails to provide any reason or motivation for combining either the Angelo and Alverson references by themselves or in combination with the other cited references as is his burden under PTO practice as well as the *KSR* Supreme Court case. While the Examiner was invited in Appellants’ Appeal Brief to provide some identification of where in the prior art the claimed method steps and elements are disclosed, he has simply chosen not to provide this level of explanation. Therefore the only logical conclusion to be reached is that there is no support for the Examiner’s position.

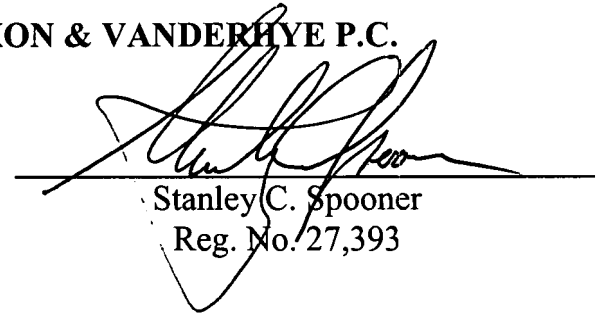
Having responded to all new points of argument raised in the Examiner’s Answer, it is clear that there is no support for the rejection of Appellants’ independent claims or claims dependent thereon under 35 USC §103. Thus, and in view of the above, the rejection of claims 1-39 under 35 USC §103 is clearly in error and reversal thereof by this Honorable Board is respectfully requested.

WATT et al  
Serial No. 10/714,483

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_



Stanley C. Spooner  
Reg. No. 27,393

SCS:kmm  
901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100